SONY

3-756-069-21(1)

Compact Disc Player

Operating Instructions

[redacted]

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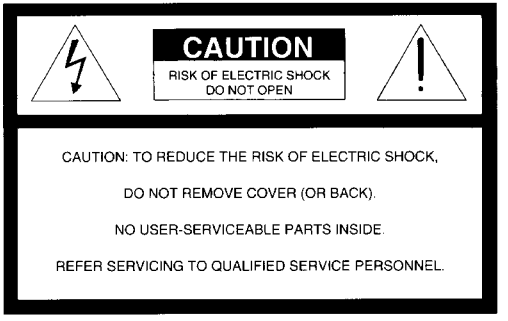
Warning

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

INFORMATION

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

– Reorient or relocate the receiving antenna.
– Increase the separation between the equipment and receiver.
– Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
– Consult the dealer or an experienced radio/TV technician for help.

CAUTION

You are cautioned that any change or modifications not expressly approved in this manual could void your authority to operate this equipment.

Owner's Record

The model and serial numbers are located at the rear of the unit. Record the serial number in the space provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. CDP-411 Serial No. _____

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Convention

This indicates a function operated only on the main unit.

Safety Precautions

Before operating the unit, please read the following precautions carefully.

Check the operating voltage of the unit before operation. Operate the unit only on 120 V AC, 60 Hz.

Stop operation immediately if any liquid or solid object should fall into the cabinet. Unplug the unit and have it checked by qualified personnel.

Unplug the unit from the wall outlet if you do not use it for a long time. Disconnect the cord by grasping the plug. Never pull the cord itself.
The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.

As the laser beam used in this unit is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.

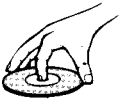
The AC power cord must be changed only at a qualified service shop.

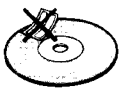
If you have any questions or problems concerning your unit, please contact your nearest Sony dealer.

For detailed safety precautions, see the leaflet "IMPORTANT SAFEGUARDS".

Notes on handling discs

- To keep the disc clean, handle the disc by its edge. Do not touch the surface.
- Do not stick paper or tape on the disc.





- Do not expose the disc to direct sunlight or heat sources such as hot air ducts, nor leave it in a car parked in direct sunlight as there may be a considerable rise in the temperature.
- After playing, store the disc in its case.

Caution on adjusting volume

Do not turn up the volume while listening to a portion with very low level inputs or no audio signals. If you do, the speakers may be damaged when a peak level portion is played.

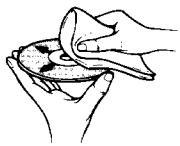
Maintenance

Cleaning Your Unit

Clean the cabinet, panel and controls with a soft cloth lightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzine.

Cleaning Discs

When a disc becomes dirty, clean it with a cleaning cloth. Wipe the disc from the center outwards.



Do not use solvents such as benzine, thinner, commercially available cleaners or anti-static spray intended for analog discs.

Unpacking

Choosing a Good Location

- Place the unit in a location with adequate air circulation to prevent internal heat build up in the unit.
- Do not place the unit on a soft surface such as a rug that might block the ventilation holes on the bottom.
- Do not install the unit:
  - near heat sources such as radiators or air ducts.
  - in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

On moisture condensation

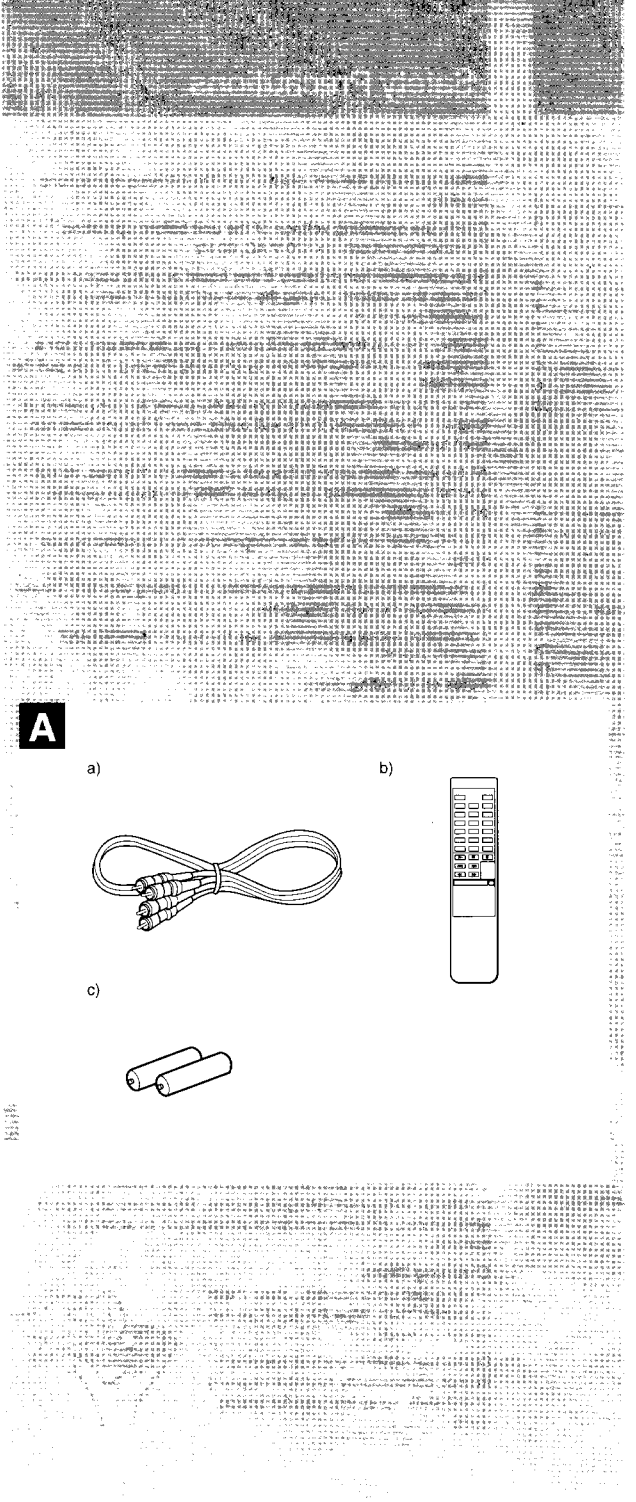
If the unit is brought directly from a cold to a warm location or is placed in a very damp room, moisture may condense on the lens inside the unit. Should this occur, the unit will not operate. In this case, remove the disc and leave the unit turned on for about an hour until the moisture evaporates.

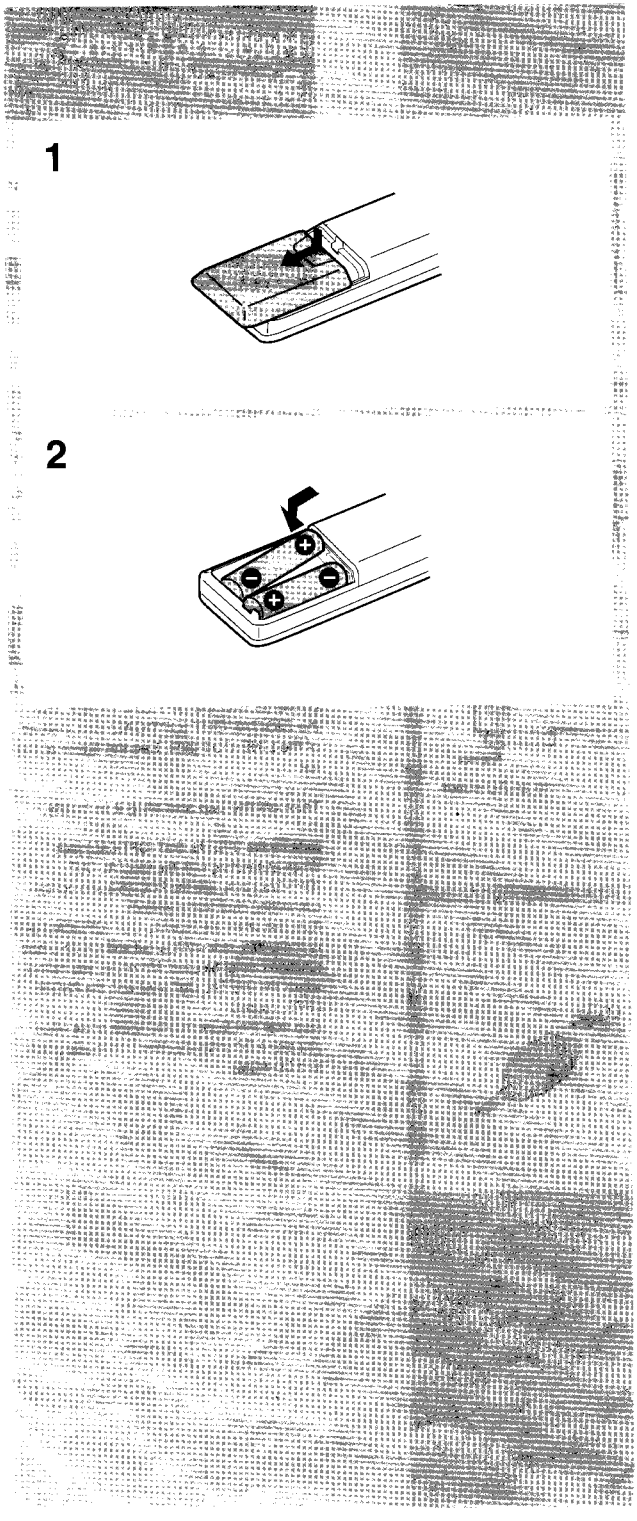
Checking the Supplied Accessories A

Make sure that all supplied accessories are included with your unit. This manual and the following items must be included with your CDP-411. If anything is missing, contact your Sony dealer.

a) Audio connecting cord (1)
b) Remote commander RM-D297 (1)
c) Sony SUM-3 (NS) batteries (2)

Do not throw away the carton and the packing material. They will come in handy when transporting the unit or shipping it for servicing.





Unpacking

Inserting the Batteries into the Remote Commander

You can control the unit with the supplied remote commander.

Insert two side AA (R6) batteries with the polarity correctly aligned.

1 Slide the cover to remove it.

2 Insert two size AA (R6) batteries correctly so that the ⊕ and ⊖ polarities match the polarity diagrams inside the battery compartment.

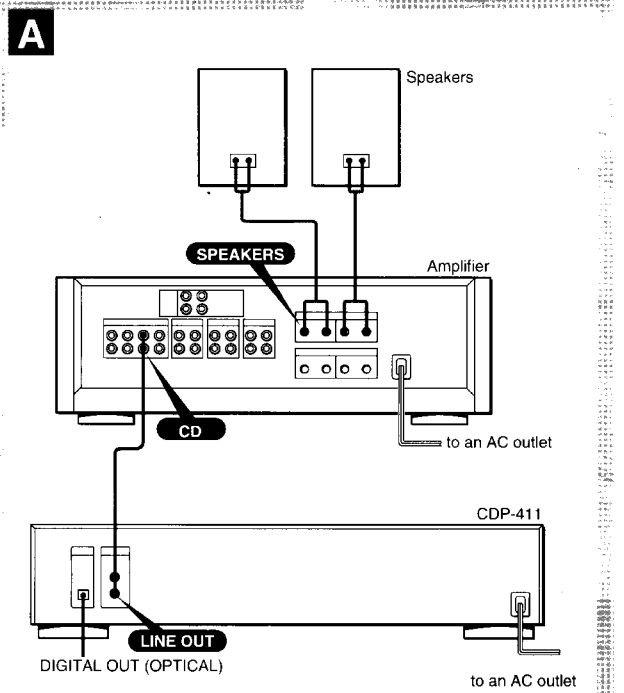
On battery life

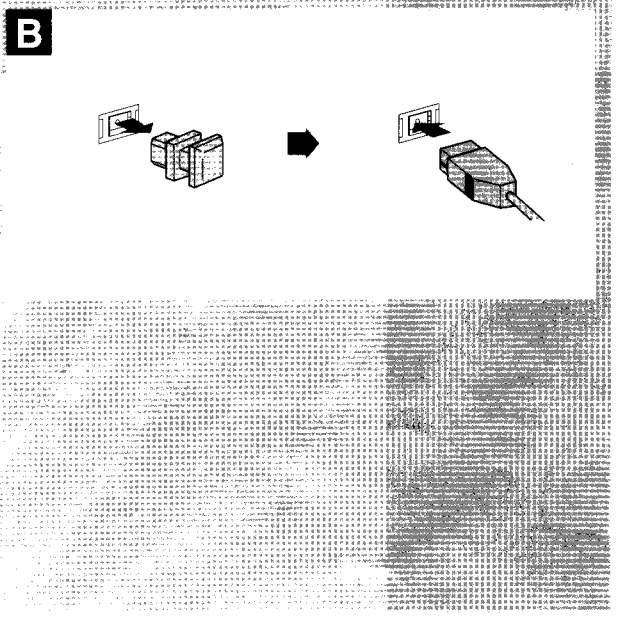
- About half a year of normal operation can be expected when using Sony SUM-3 (NS) batteries.
- When the batteries are run down, the remote commander will not operate the unit. In this case, replace both batteries with new ones.

Notes on the remote commander and remote control operation

- Keep the commander away from extremely hot or humid places.
- Avoid dropping any foreign objects into the commander casing, particularly when replacing the batteries.
- Avoid exposing the remote sensor to direct sunlight or lighting apparatus. Such exposure can cause a malfunction.
- To avoid damage caused by battery leakage and corrosion, remove the batteries when the commander will not be used for a long time.

Hooking Up the System





Connect the unit to an amplifier as shown in Fig. A.

Notes on Connection

- Turn off the power of each unit before making connections. Connect the AC power cord last.
- Be sure to insert the plugs firmly into the jacks. Loose connections may cause hum and noise.
- Leave a little slack in the connecting cord to allow for inadvertent shock or vibration.
- The supplied audio cord plugs and jacks are color coded. Red plugs and jacks are for the right channel (R) and white ones are for the left channel (L).

Connection to an Equipment with Digital Input B

When connecting to an amplifier or to a D/A converter with the OPTICAL IN jack, use the DIGITAL OUT (OPTICAL) jack instead of the LINE OUT jack. See the figure at the left.

Take off the cap and plug it in firmly.

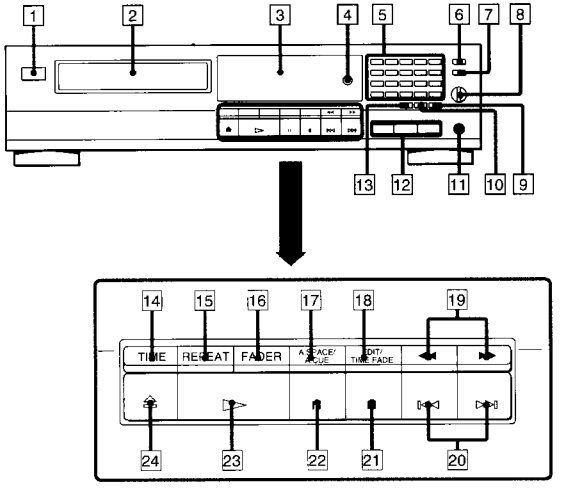
Note on the DIGITAL OUT (OPTICAL) jack

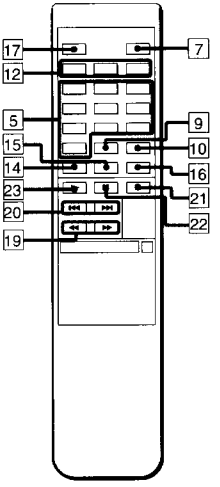
When connecting with the DIGITAL OUT (OPTICAL) jack, use the POC-15 audio optical connecting cord (not supplied).

Note that when the DIGITAL OUT (OPTICAL) jack is connected, fade-in/fade-out and the time fade function cannot be used. Moreover, you cannot adjust the DIGITAL OUT level with the PHONE LEVEL control.

Also note that there may be some noise when you play a CD software other than music (such as a CD-ROM).

Identifying the Parts





Refer to the pages indicated in parentheses for details.

Front Panel/ Remote Commander

1 POWER switch (8)
2 Disc tray (8)
3 Display window (8)
4 Remote sensor
5 Numeric buttons (10, 14, 16, 22)
6 PEAK SEARCH button (26)
7 MUSIC SCAN button (19)
8 PHONE LEVEL control (8)
9 >20 (over 20) button (10)
(>10 (over 10) button on the remote commander)
10 CLEAR (program clear) button (14, 15, 18)
11 PHONES jack
12 Play mode buttons
CONTINUE button (13, 15)
SHUFFLE button (13, 14, 15)
PROGRAM button (16, 17)
13 CHECK (program check) button (17, 18)
14 TIME button (9)
15 REPEAT button (20)
16 FADER button (21)
17 A.SPACE/A.CUE button (11, 12)
18 EDIT/TIME FADE button (22, 25)
19 ◀◀/▶▶ (manual search) buttons (10, 19, 21)
20 I◀◀/▶▶I (AMS*) buttons (10, 16, 23)
21 ■ (stop) button (8)
22 II (pause) button (8)
23 ▶ (play) button (8)
24 ⏏ OPEN/CLOSE button (8)

* AMS is the abbreviation of Automatic Music Sensor.

Playing a Disc

In continuous play mode, you can play from the first selection or a desired selection on your disc.
Before playing a disc, turn on the amplifier and set the input selector to the CD player position.

Playing the Entire Disc

1 Press POWER.
The display window lights up.

2 Press ≜ OPEN/CLOSE.
The disc tray comes out.

3 Place the disc with the printed side up on the tray.

4 Press ▶.
The disc tray closes to start the first selection.
a) Selection number
b) Elapsed playing time
c) Music calendar

To stop play

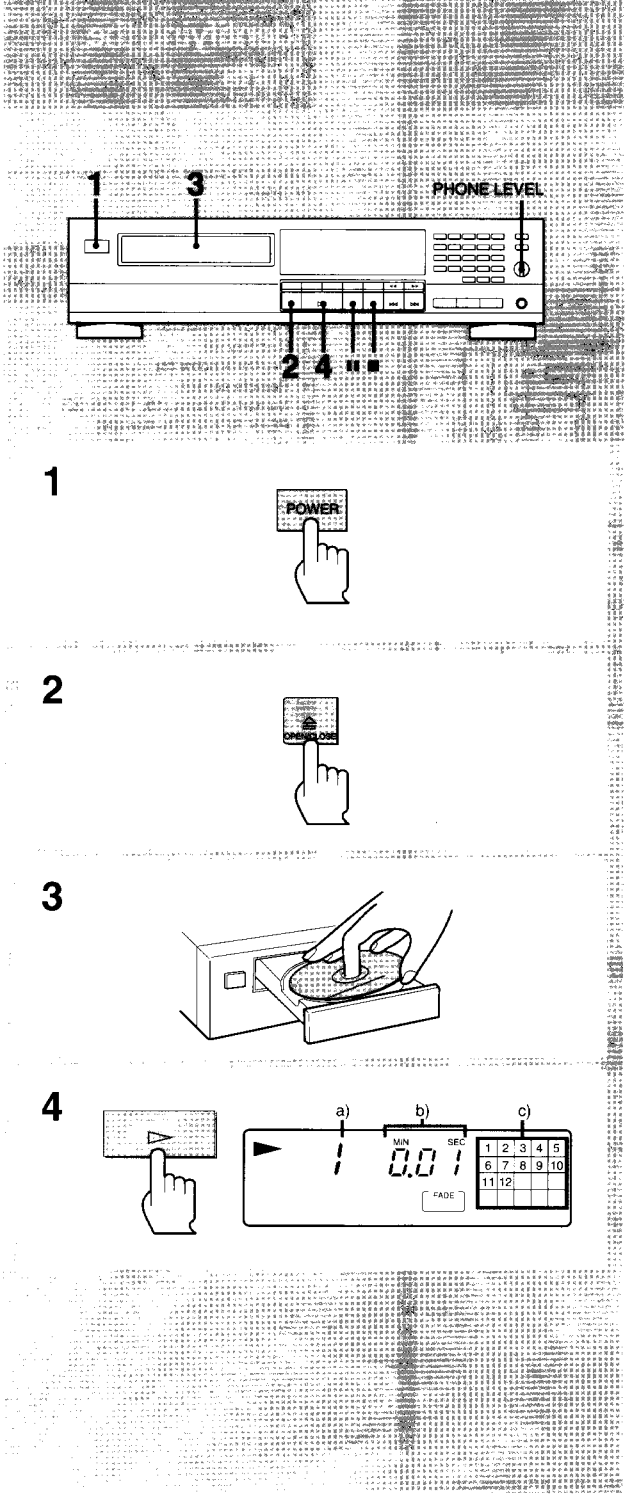
To stop for a moment during play, press ❚❚.
To resume play, press ▶ or ❚❚ again.
To stop play, press ■.
To stop play and open the tray, press ≜ OPEN/CLOSE.

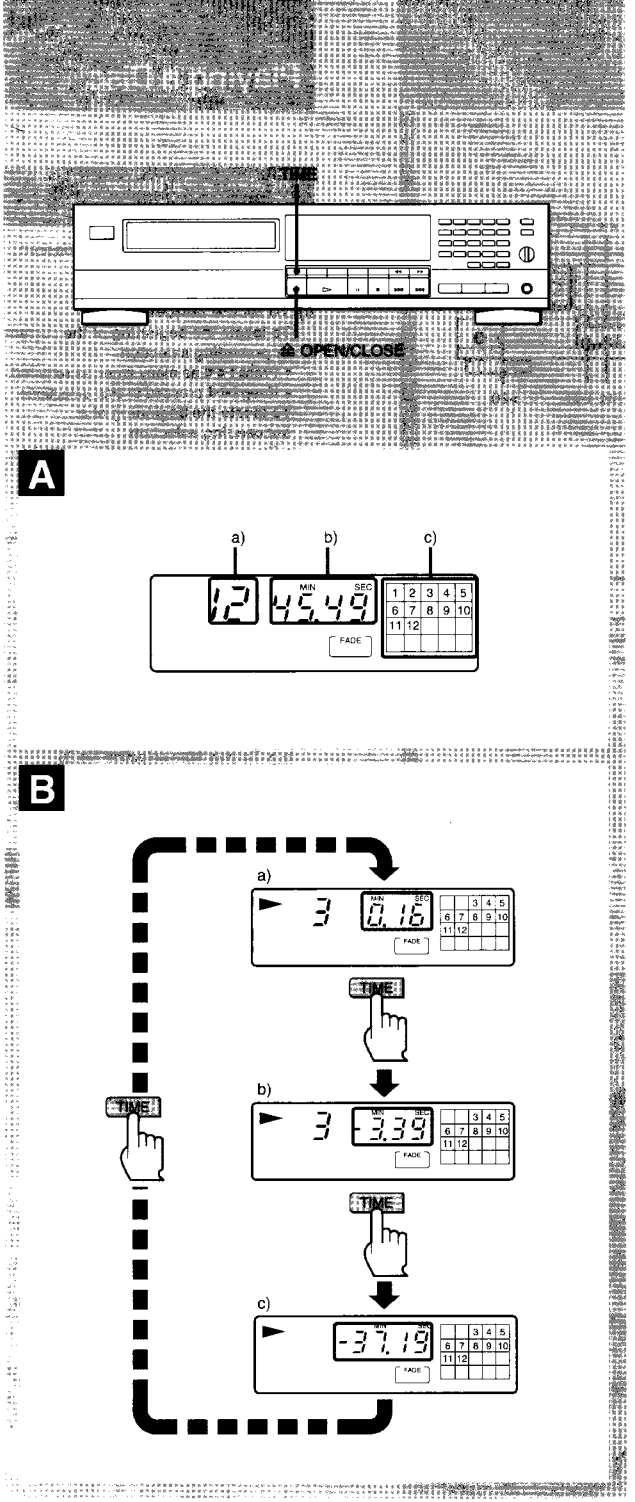
To play an 8cm (3-inch) CD

Place it on the inner circle of the tray. If the disc is provided with an adaptor, first remove it. Do not put a normal CD (12cm/5-inch) upon an 8 cm CD.

For private listening

Connect a pair of headphones to the PHONES jack.
To increase the volume, turn the PHONE LEVEL control clockwise.
To decrease it, turn the PHONE LEVEL control counterclockwise.





Playing a Disc

If you turn on the power with a disc in the tray
Play begins automatically from the first selection on the disc. By connecting a commercially available timer, disc play can be started at any desired time.

What is this indication?

no dISC

This indication appears when there is no disc on the disc tray.

Information Display

To check the total number of selections and total playing time

When you press ≜ OPEN/CLOSE to close the tray, or press TIME in stop mode, the display shows you the following information (see Fig. **A**):

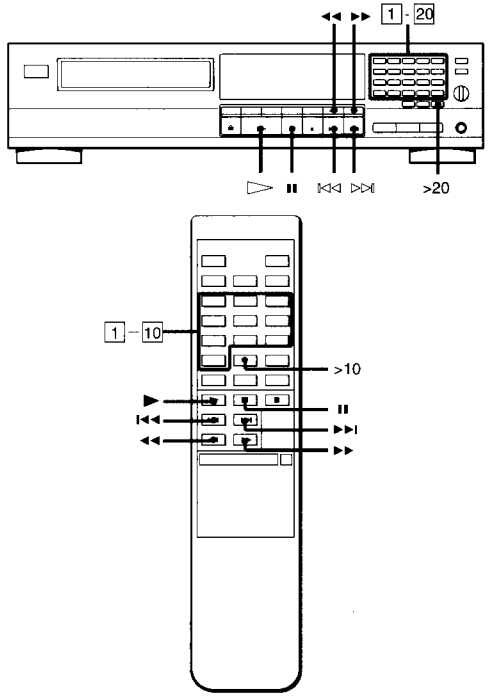
a) Total number of selections
b) Total playing time
c) Music calendar

To check the remaining playing time

Each time you press TIME during play, the display changes to give you the following information (see Fig. **B**):

a) Elapsed playing time
b) Remaining time in a selection
c) Remaining time of the disc
However, "– – . – –" appears instead of the actual time when the remaining time exceeds 100 minutes in program mode.

Note
The time display mode selected with TIME will not change until the power is turned off.



Playing a Disc

Locating a Particular Selection

You can locate the beginning of a desired selection in two ways.

a) To locate sequentially

To locate the beginning of the current or preceding selection

- Press I◀◀ as many times as required.
- Keep I◀◀ pressed to skip selections.

To locate the beginning of a succeeding selection

- Press ▶▶I as many times as required.
- Keep ▶▶I pressed to skip selections.

b) To locate directly

Press one of the numeric buttons (1 to 20 on the main unit, or 1 to 10 on the remote commander) to enter the desired selection number.

If a selection number is greater than 20 (or 10 when using the remote commander), use the >20 (or >10) and 1 to 10 buttons. 10 functions as the figure 0.

e.g. To play from selection No.22
Press >20 (or >10) and 2 2

e.g. To play from selection No.30
Press >20 (or >10) and 3 10

Locating a Particular Point in a Selection

You can also locate a particular point on the disc during play in two ways.

a) To search quickly while monitoring the sound

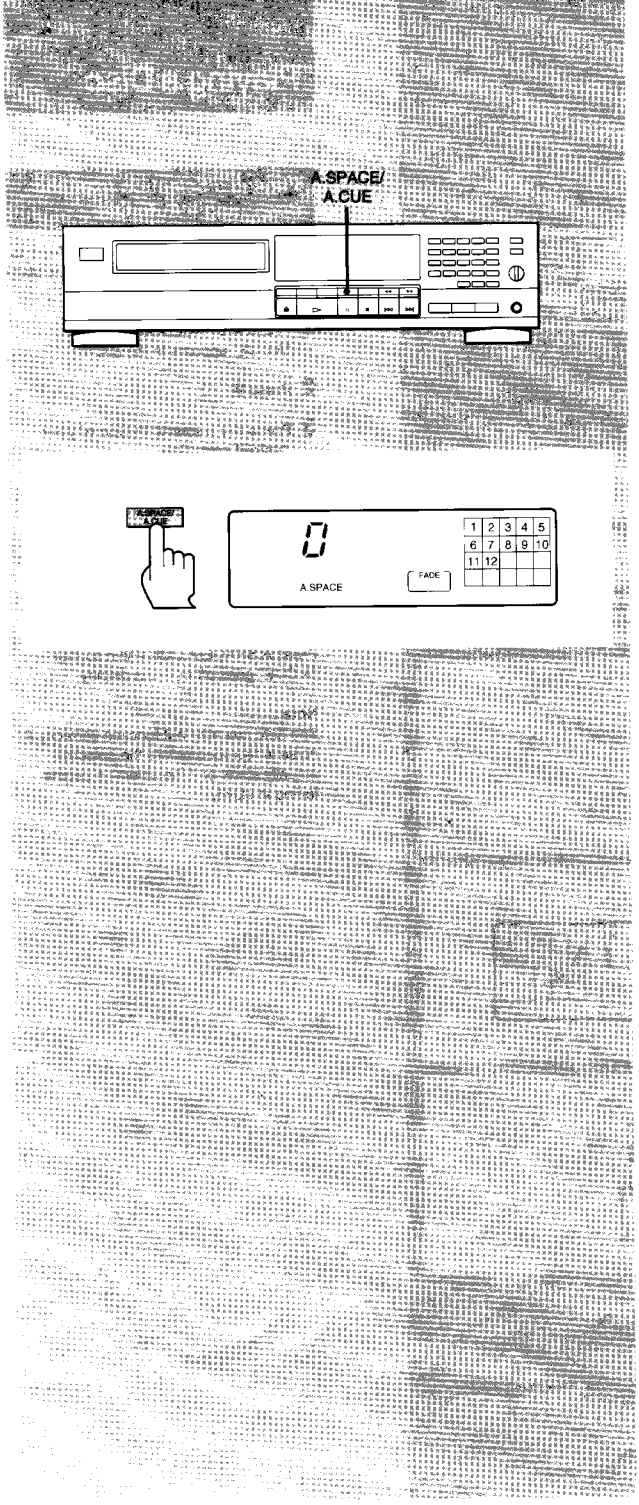
Forward locating at high speed
Keep ▶▶ pressed during play and release it at the desired point.

Reverse locating at high speed
Keep ◀◀ pressed during play and release it at the desired point.

b) To search quickly by observing the display

Press II, then keep ◀◀ or ▶▶ pressed. The search speed will increase, but there will be no sound. Find the desired point by observing the display.
Press ▶ or II again at the desired point.

When "--" is displayed
If you continuously press ▶▶ over the last selection, "--" appears in the display. Press ◀◀ or I◀◀ to return to normal indication.



Inserting a Blank Space between Selections – Auto Space

You can insert a 3-second blank space between each selection. The blank space enables you to locate selections when using a tape deck with automatic selection search function.

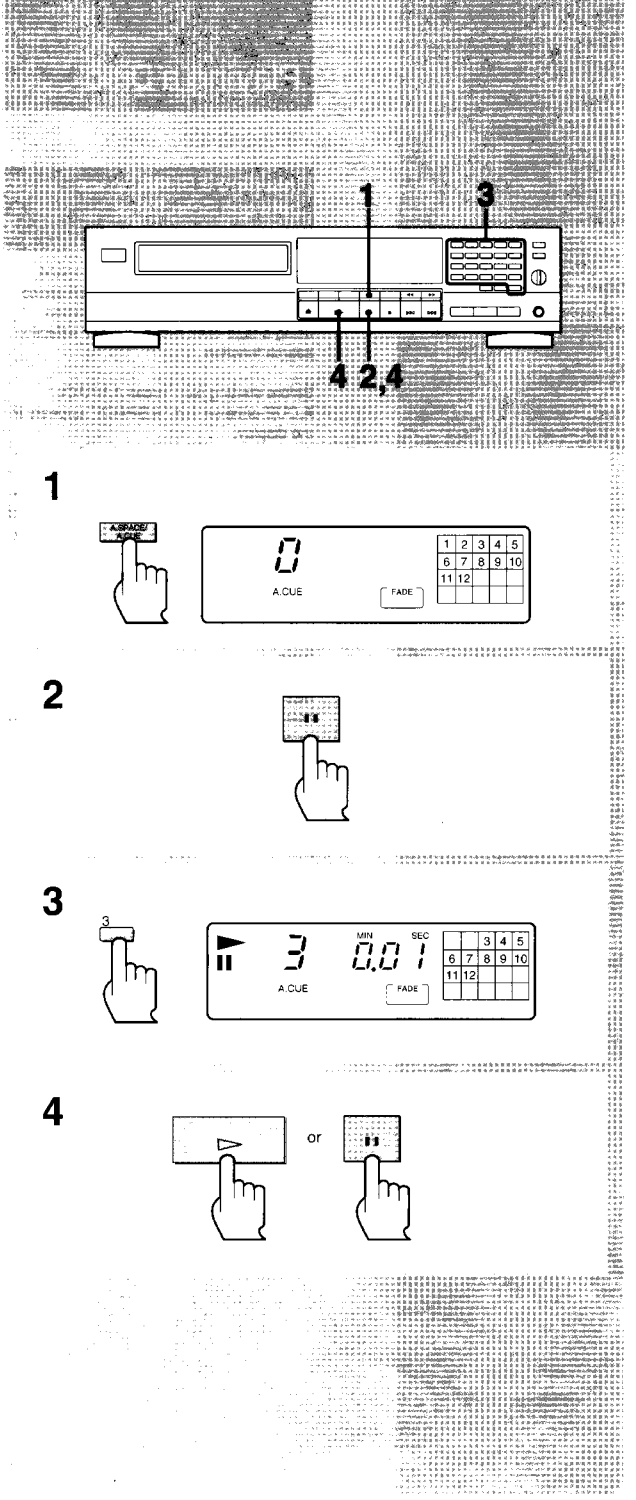
Before starting play, press A.SPACE/A.CUE once so that "A.SPACE" appears in the display.
A blank space of approximately 3 seconds will be added after each selection. The playing time of each selection will increase by 3 seconds. Consequently, the increased playing time will be indicated in the display.

To cancel the auto space function

Press A.SPACE/A.CUE twice so that "A.SPACE" goes off from the display.

Note

If you use the auto space function with a disc such as a symphony on which the selection number changes even though the music is continuous, the sound may be interrupted with the 3-second blank space where the selection number changes.



Playing a Disc

Playing a Selection from the Beginning – Auto Cue

You can start a given selection just from its exact beginning without listening to its blank lead-in portion.

1 **Press A.SPACE/A.CUE twice.**
"A.CUE" appears in the display.

2 **Press II.**

3 **Press the numeric button of your desired selection.**
Having found the beginning of the selection, the unit displays the actual starting time of the selection.

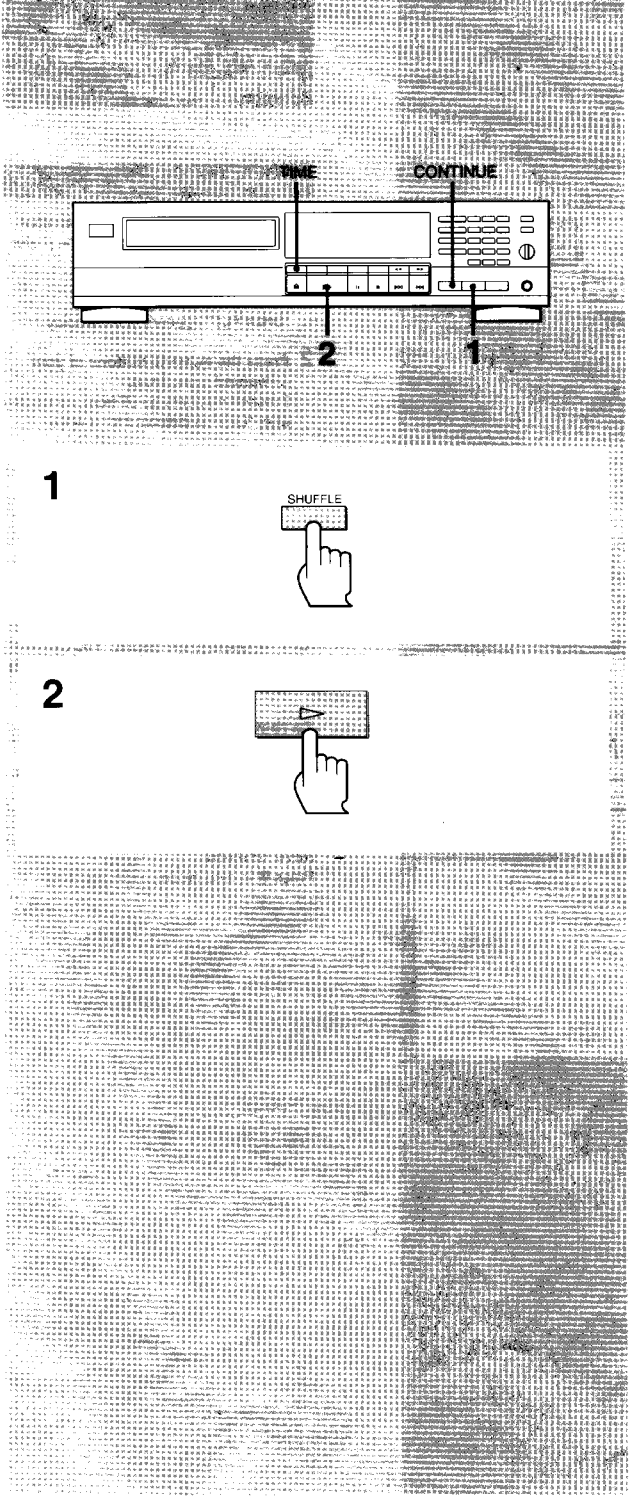
4 **Press ▶ or II.**
The selection starts exactly from its beginning.

To cancel the auto cue function

Press A.SPACE/A.CUE again so that "A.CUE" goes off from the display.

Note

The auto cue may not function correctly if noise is recorded before the selection actually starts or if the selection begins fading in slowly.



Playing Selections in a Random Order

You can have the selections played in a random order.
The unit will play all the selections, or just the selections you prefer.

Shuffle Play

The unit plays all the selections in a random order.

1 Press SHUFFLE.
"SHUFFLE" appears in the display.

2 Press ►.

To cancel shuffle play

Press CONTINUE and the unit enters continuous play mode. "SHUFFLE" goes off from the display.

To check the remaining time

Press TIME once to see the remaining time of the selection being played; twice to see the total remaining time; once more to return to the initial display.

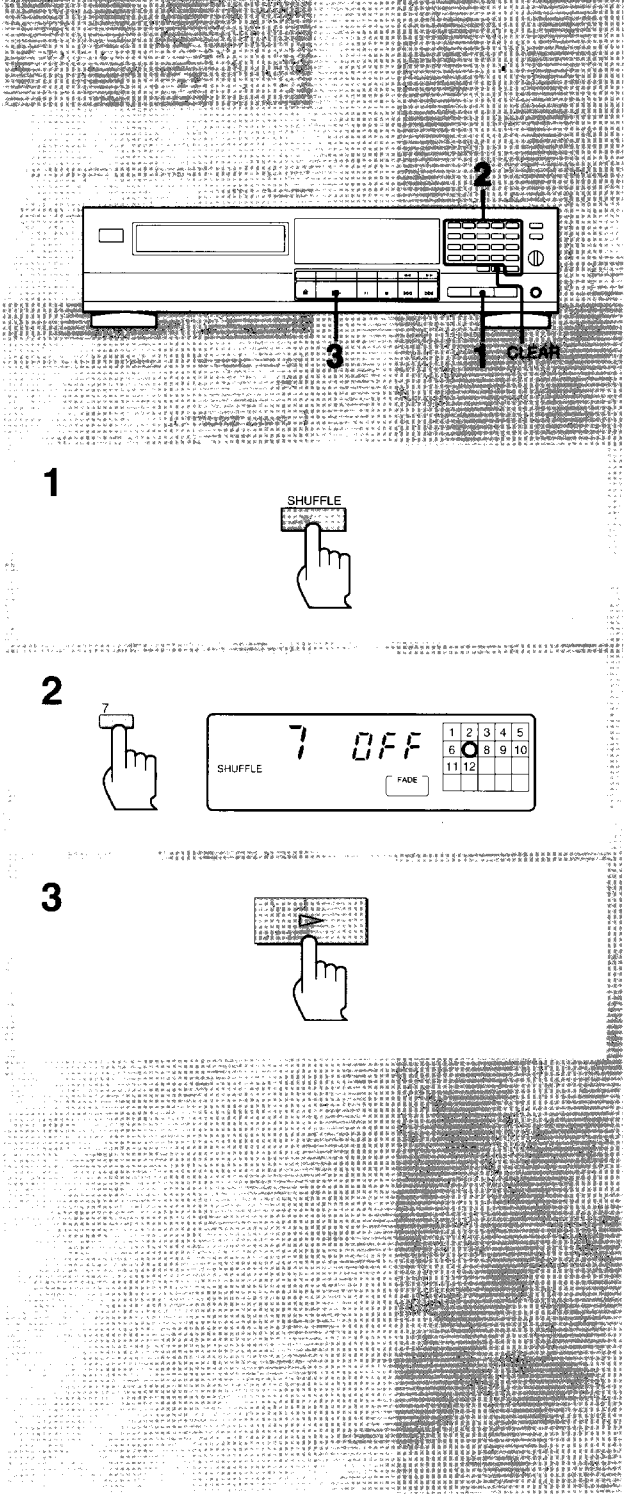
To start shuffle play immediately from the current selection

Press SHUFFLE during play and shuffle play begins from the current selection.

What is this indication?

This indication appears while the unit is "shuffling" the selections.

Playing Selections in a Random Order



Delete Shuffle Play

When you delete the unwanted selections, the unit plays just the selections you prefer in shuffle play mode.

1 **Press SHUFFLE.**
"SHUFFLE" appears in the display.

2 **Press the numeric buttons of your unwanted selections.**
Pressed numbers go off from the display after "OFF" is indicated for a while.

To choose a selection number over 20 (or 10 when using the remote commander), see page 10.

3 **Press ▶.**
Delete shuffle play starts.

To delete a selection during play

Press the numeric button for that selection. "OFF" appears in the display. You can also delete a selection being played by pressing CLEAR.

To restore a selection which you have deleted

Press the numeric button for that selection. "On" appears in the display.

To restore all the selections you have deleted

Press ■ in stop mode.

Playing Only Desired Selections

You can delete unwanted selections and play the remaining selections in continuous play mode.

Delete Play

1 **Press SHUFFLE.**
"SHUFFLE" appears in the display.

2 **Press numeric buttons to delete unwanted selections.**
Pressed numbers go off from the display after "OFF" is indicated for a while.

To restore a deleted selection while "SHUFFLE" is illuminated, press the numeric button for that selection. "On" appears in the display.

To choose a selection number over 20 (or 10 when using the remote commander), see page 10.

3 **Press CONTINUE.**
"SHUFFLE" goes off from the display.

4 **Press ▶.**
Only the remaining selections are played in the numerical order of the disc.

To delete a selection during play

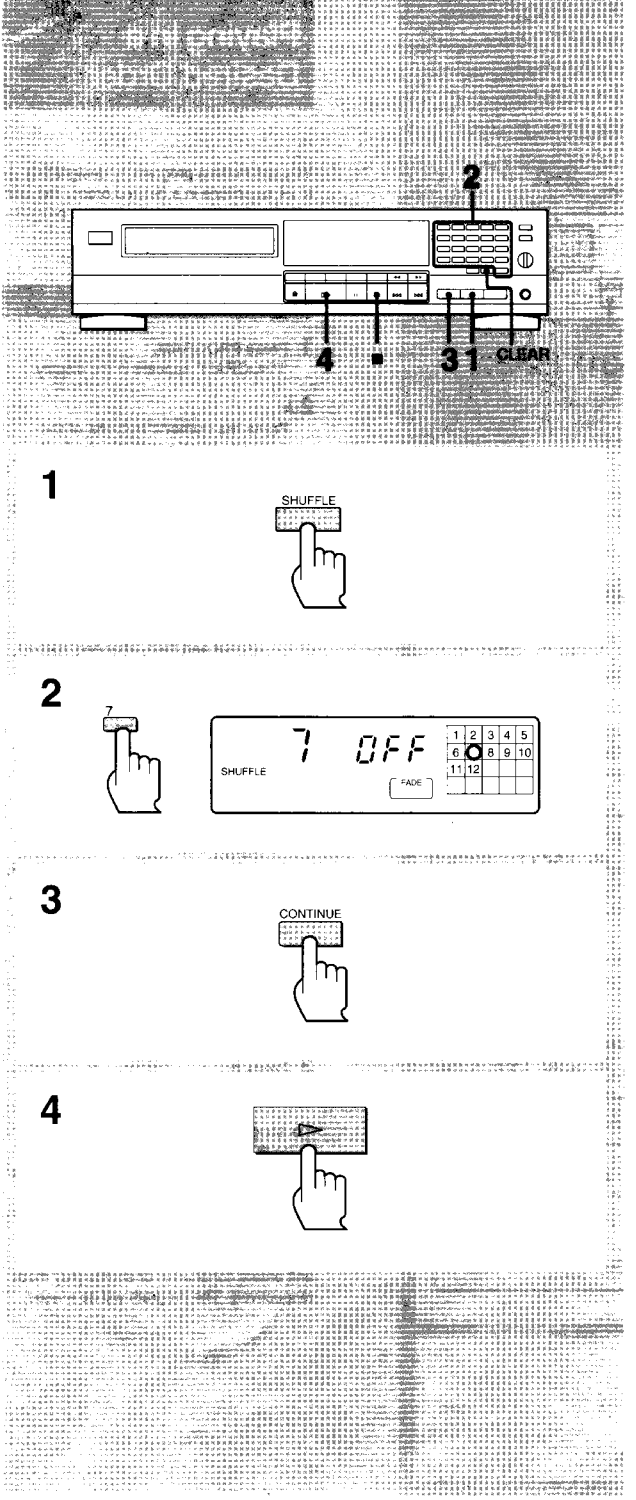
Press CLEAR while an unwanted selection is being played. The next selection is played.

To restore all the selections you have deleted

Press ■ in stop mode.

When delete play ends
Selections, except deleted ones, will be restored.

If you press SHUFFLE during delete play
Selections will be played in delete shuffle play mode.



Playing in a Desired Order

You can make a program by designating up to 24 selections in a desired order. The unit will play the disc according to your program.

Playing a Program

1 **Press PROGRAM.**
"PROGRAM" appears in the display.

2-A
Press the numeric buttons of the desired selections in the desired order.

To select a selection number over 20 (or 10 on the remote commander), see page 10.

a) Last programmed selection,
b) The order to be played and
c) Programmed selection numbers appear and then, after one second, the total playing time (d)) appears.

If you choose wrong selections
Each time you press CLEAR, the last selection chosen is deleted.

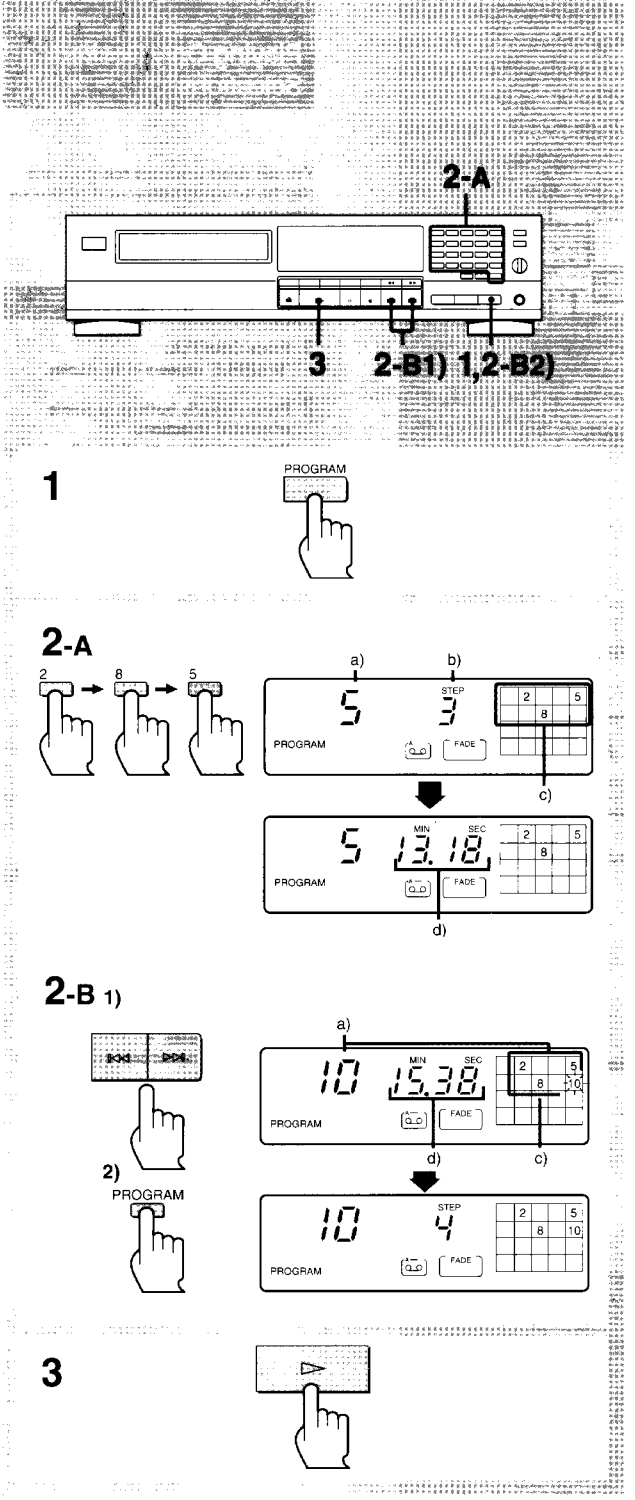
2-B
1) **Press I◄◄ or ►►I to change a selection and check the time.**
– Program edit
If satisfactory, go to the next step. If not, choose another selection.
Total playing time of selections (d)) is displayed.

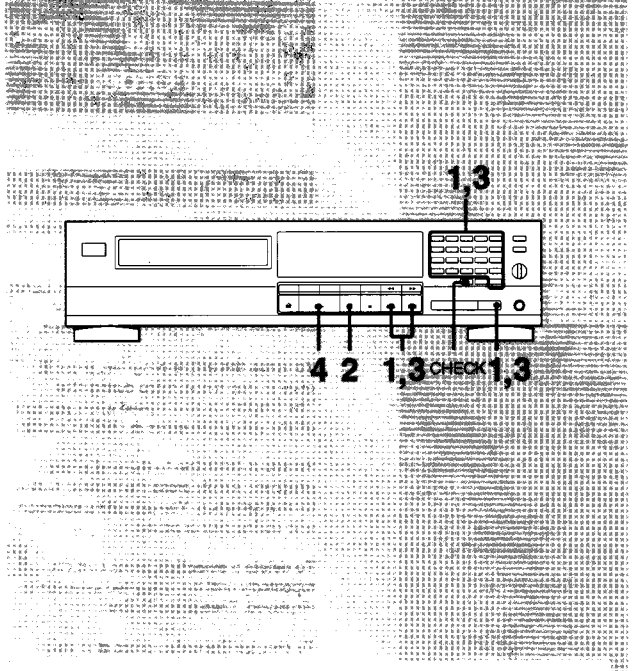
2) **Press PROGRAM to store the selection.**
Step number appears in the display for a while.

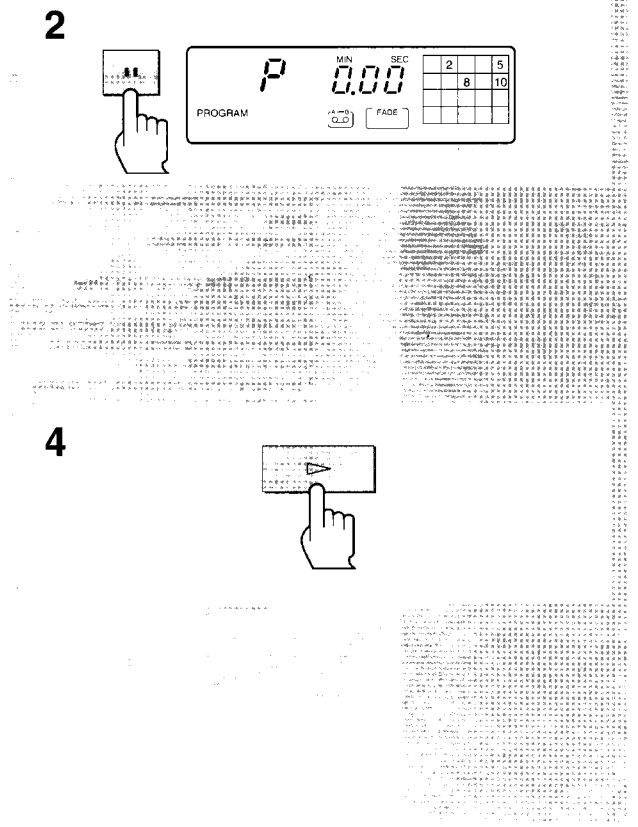
3 **Press ►.**
Program play starts.

To stop playing
Press ■.
When you press ►, you can play the same program repeatedly.

To cancel program play
Press CONTINUE or SHUFFLE and the unit enters continuous or shuffle play mode respectively. The program will be erased.







Playing in a Desired Order

Recording a Program

You can adjust the total playing time of the program, so that you can make the program fit the length of a tape when recording. You will also find it convenient to make a program including a pause for recording on both sides of a tape.

1 **Make a program for side A by following the steps 1 and 2-A/2-B on page 16.**

2 **Press II to make a program for side B.**
"P" appears in the display and the total playing time is reset to 0. A pause is also counted as a selection.

3 **Program selections for side B by repeating step 2-A or 2-B on page 16.**

4 **Start recording on the cassette deck and press ▶.**
It is better start recording on the cassette deck first to transport the leader tape before pressing ▶ on this unit.

To play the selections for side B

When the selections for side A are played, the unit enters pause mode. Reverse the tape, then press ▶ or II.

To check your program

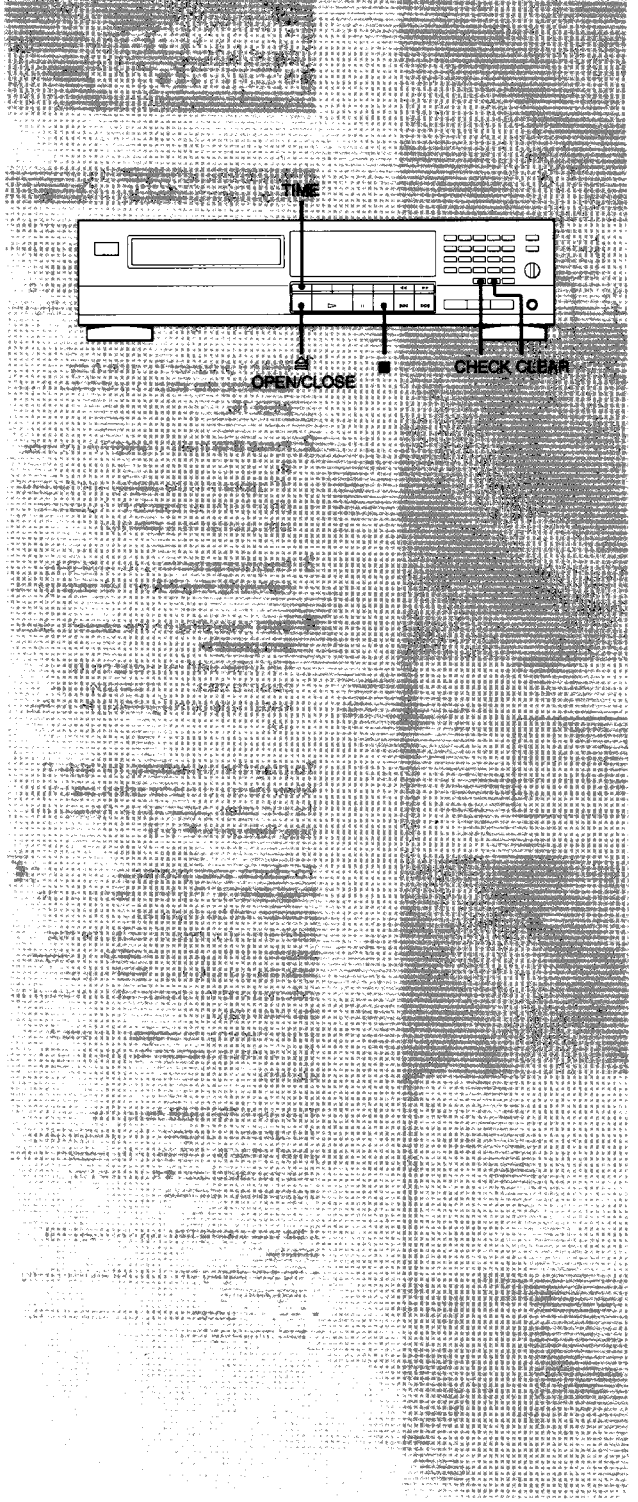
Press CHECK. The first selection in the program will be displayed.
Each time you press CHECK, the next selection in the program will be displayed.
After the last selection, "End" will be indicated and the display will soon return to the initial status.
While checking the program for side A, appears and also for side B, appears.

If you press PROGRAM during play

You can make a program. The selection being played will be the first one in the program. In this case, you cannot use I◀◀ and ▶▶I for programming selections.

If the total playing time has exceeded 100 minutes

- The total playing time does not appear during programming.
- "– – . – –" appears during play instead of the total remaining time.



Playing in a Desired Order

Changing Your Program

You can make the following changes before starting play.

To erase the last selection, press CLEAR. Each time you press CLEAR, the last selection in the program will be erased.

To erase the entire program, press ■ once in stop mode; twice during play. The program is also erased when you turn off the unit or you press ⏏ OPEN/CLOSE.

To add a selection to the end of the program, simply press the numeric button for that selection. You can add a selection also during play or pause.

To delete a selection, press CHECK repeatedly until the unwanted selection is displayed. Then press CLEAR.

To change the order, press ■ in stop mode to erase the program. Then repeat the programming procedure from the beginning.

To adjust the blank spaces between selections

A blank space of 3 seconds will be added after each selection when making a program with the auto space function. Consequently, the total playing time including added spaces appears in the display.
See page 11 for details.

To check the remaining time

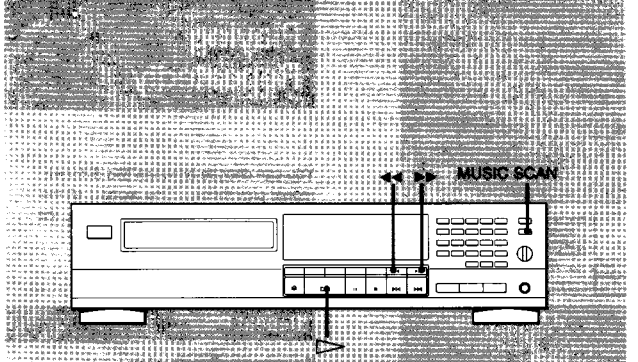
Press TIME once to see the remaining time of the selection being played; twice to see the total remaining time; once more to return to the initial display.
If you have inserted a pause, the display shows the remaining time until the pause.

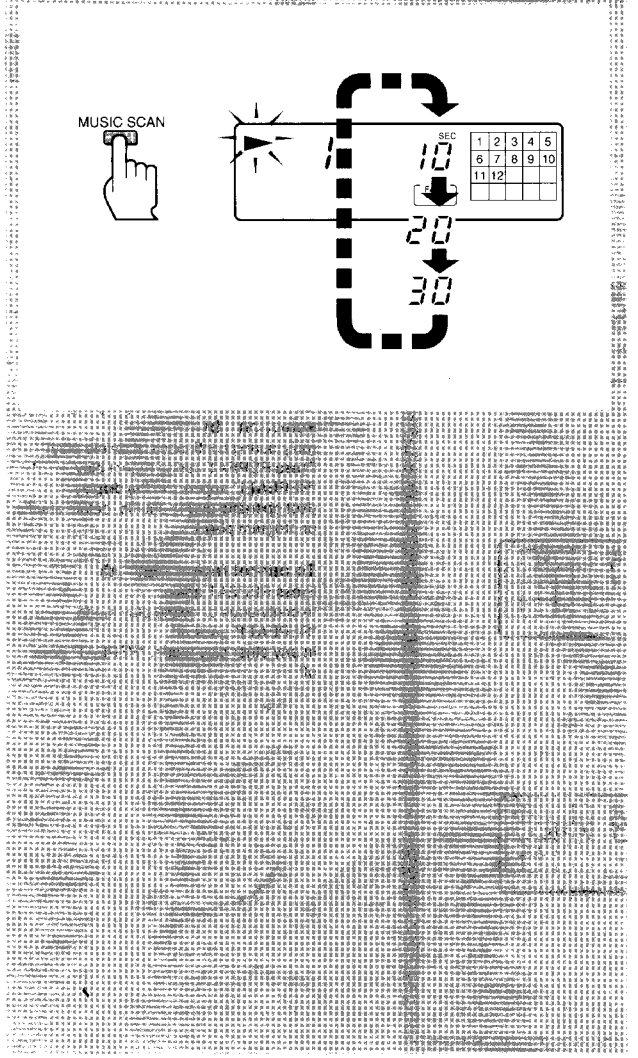
What is the tape indicator?

During program play, the tape indicator shows you which side of the program is being played.

: Program A is being played.

: Program A has been played and the unit is in pause mode, or program B is being played.





Playing the Beginning of Each Selection

You can play the beginning of each selection consecutively in any play mode. It is useful for checking the contents of a disc or program. You can choose the playing time of each selection from among 10, 20, and 30 seconds.

Music Scan Play

Press MUSIC SCAN in stop mode.
Each time you press MUSIC SCAN, the playing time of each selection changes cyclically from 10 to 30 seconds.
"▶" in the display flashes and the beginning of each selection is played for the designated period.

To start normal play immediately during scanning

Press ▶. "▶" in the display stops flashing.

To change the designated playing time during scanning

Press MUSIC SCAN consecutively within 3 seconds until the desired playing time appears in the display.

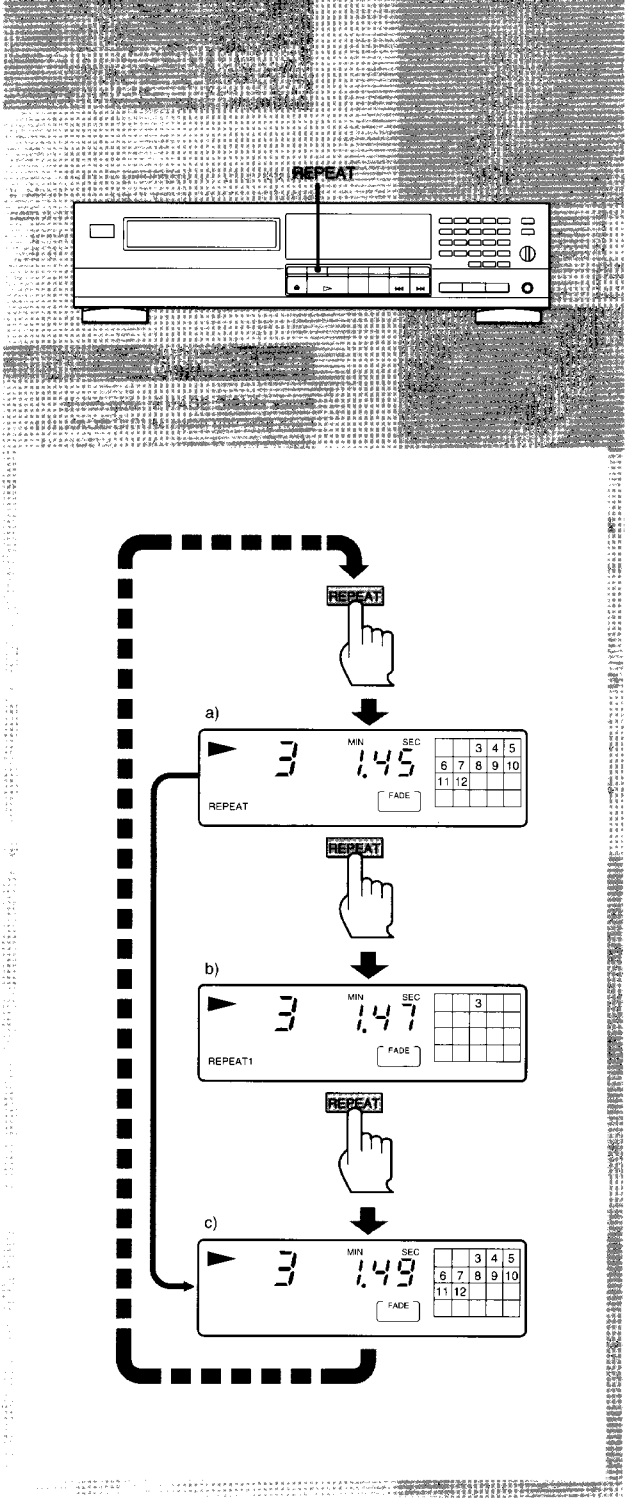
If you press ◀◀ or ▶▶

Music scan play will be cancelled.

Note

Whenever the unit is turned off, scanning time is reset to 10 seconds.

Playing Repeatedly



You can choose between two different repeat play modes. One repeats all the selections in the current play mode, the other repeats any given selection.

Repeat Play

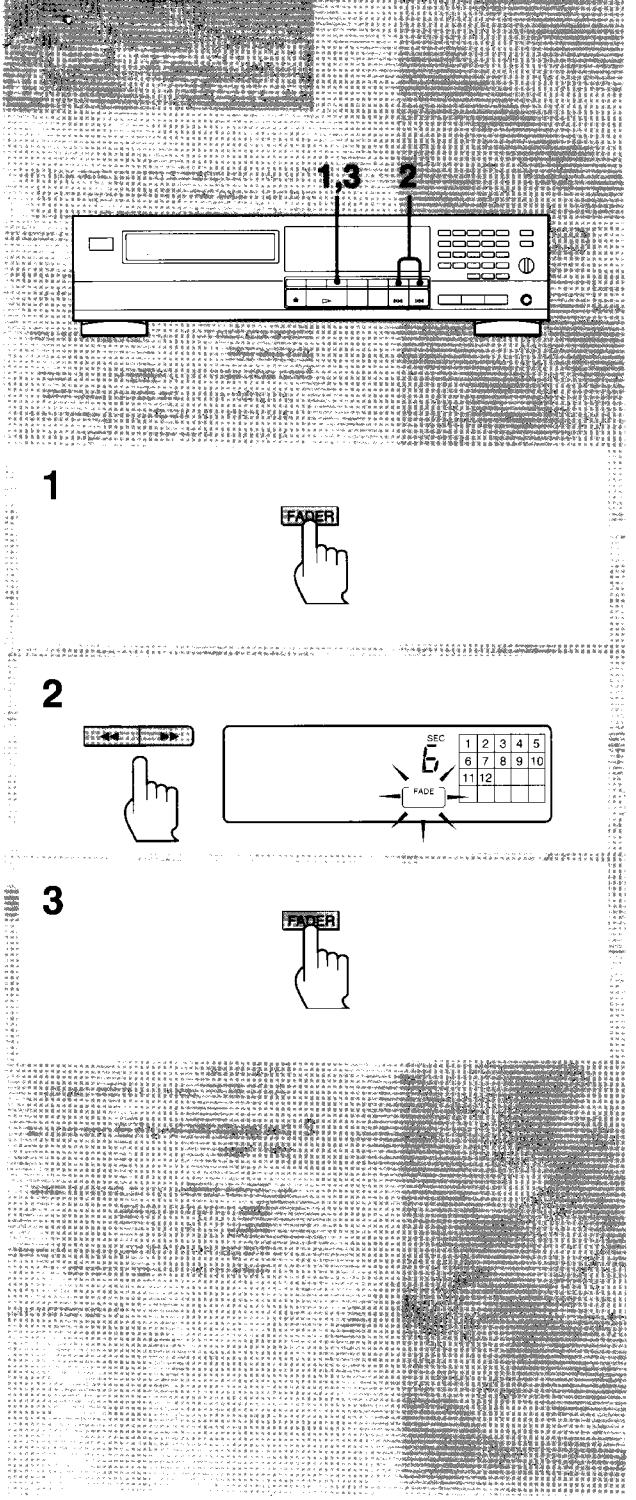
To repeat all selections a)
Press REPEAT once. "REPEAT" appears in the display.
The unit will repeat in the current play mode.

Play mode	Selections to be repeated
Continuous play	All the selections
Shuffle play	All the selections that the unit reshuffles
Program play	All the programmed selections in the same order
Delete shuffle play	All the remaining selections that the unit reshuffles
Delete play	All the remaining selections

To repeat the current playing selection b)
(only during continuous or delete play)
Press REPEAT during repeat play.
"REPEAT1" appears in the display.
(Not operable during shuffle, delete shuffle, or program play.)

To cancel repeat play c)
Press REPEAT again.
In continuous or delete play mode, "REPEAT1" goes off.
In any other play mode, "REPEAT" goes off.

Fade-In/Fade-Out



You can have the play fade in or out from 2 to 10 seconds.
Fade-in/fade-out effect cannot be obtained when the DIGITAL OUT (OPTICAL) jack is used for connections.

To end play fading out

Press FADER when you want to start fading out.
"▮▮►" in [FADE] flashes in the display, and play fades out and the unit enters pause mode.

To restart play fading in

Press FADER in pause mode. "◄▮▮" in [FADE] flashes in the display.

To designate the fading duration

1 Press FADER in stop mode.

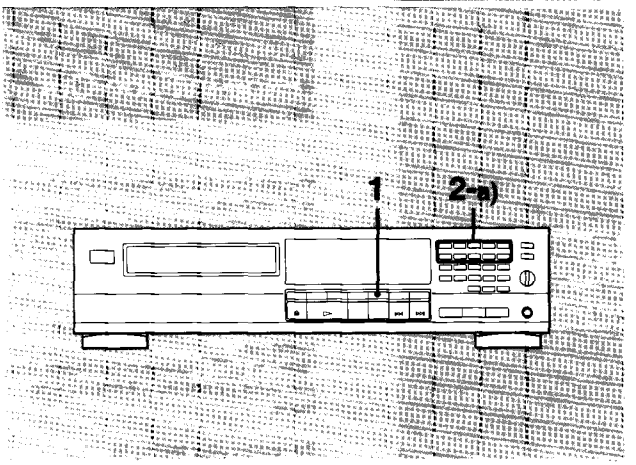
2 Designate the fading duration within the range of 2 to 10 seconds by pressing ◄◄ or ►►.

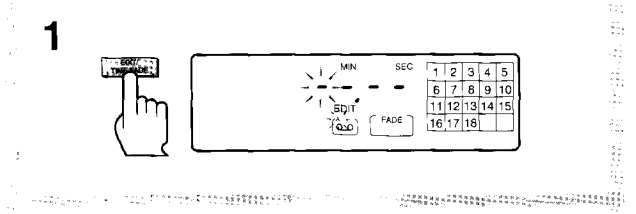
3 Press FADER again.

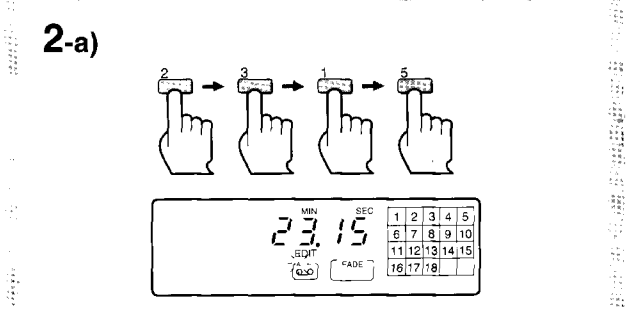
If no designation is made, fading will last for 5 seconds.

Note

Whenever the unit is turned off, fading time is reset to 5 seconds.







Designating the Total Playing Time

You can designate a playing time and the unit will make two different programs of selections each fitting within that period. These programs can contain up to a total of 24 selections.
Use this function, by designating the length of your tape, for editing both sides of a tape.
There are two types of editing: Time edit and just edit.
Time edit: sets the playing time of each program within the designated time automatically, by choosing selections in numerical order which changes as little as possible.
Just edit: sets the playing time of each program exactly (if impossible, approximately) with the designated time, by choosing selections without respect to numerical order.

You can also program desired selections by priority. In this case, you can designate desired selections beforehand and the remaining selections will be programmed to fit in the remaining time.
A blank space of 3 seconds will be added after each selection when making programs with the auto space function. The playing time of each selection will increase by 3 seconds. Consequently, the increased playing time will appear in the display (see page 11).

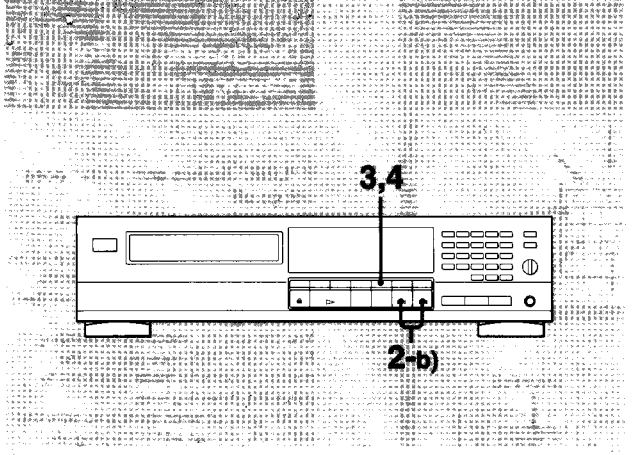
Operating Time Edit/Just Edit

1 Press EDIT/TIME FADE and display "EDIT" (TIME EDIT) or "JUST EDIT".
To choose time edit, press EDIT/ TIME FADE once.
"EDIT" appears in the display.
To choose just edit, press EDIT/ TIME FADE twice.
"JUST EDIT" appears in the display.

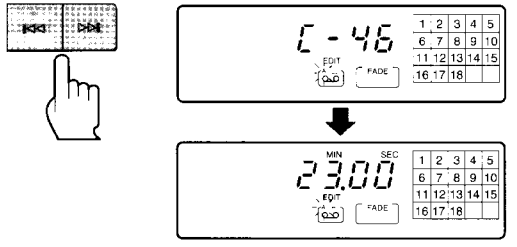
2 Designate the length of one side of your tape.

a) When setting your desired time
Use numeric buttons.
Press 10 for "0".
It is generally not necessary to press numeric buttons for seconds.

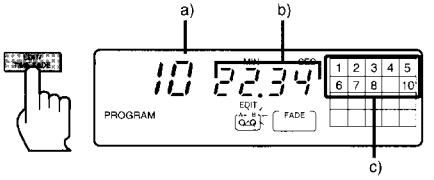
(to be continued)



2-b)



3



4

Designating the Total Playing Time

(continued)

b) When using a commercial tape

You can designate the tape length easily with I◀◀ or ▶▶I.

Press I◀◀ or ▶▶I in this step.

Each time you press I◀◀ or ▶▶I, the display changes to give you the following durations:

HALF ⟷ C-46 (23.00 min) ⟷ C-54 (27.00 min) ⟷ C-60 (30.00 min)

C-90 (45.00 min) ⟷ C-74 (37.00 min)

When you select HALF, the playing time of each program is set to a half of the total playing time of the disc. However, programming for time edit and just edit are performed in different ways.

Time edit: divides all the selections of the disc into two programs without changing their order.

Just edit: programs selections by changing their order so that the length of each program becomes half the total playing time of the disc. However the program for side A will be a little longer than that of side B since the unit distributes all the selections.

Note

HALF cannot be set on a disc with more than 20 selections.

3 Press EDIT/TIME FADE.

The selections for side A are determined automatically.

a) The last selection to be recorded,
b) Total playing time, and
c) Selections to be recorded on side A are displayed.

4 Press EDIT/TIME FADE once more while "B" in the tape indicator is flashing.

Another program for the other side is completed.

Designating the Total Playing Time

If "LINK" flashes and "EDIT" does not go off

You can add some selections whose playing times are shorter than the remaining time of each program after all the selections on the disc are programmed. "LINK" and the selection numbers will flash. (See Fig. A.)
You can add the selections by pressing EDIT/TIME FADE once more, or the numeric buttons for these selections to utilize the remaining time.
"EDIT" goes off when there is no selection left which you can add to the program.

If the unit takes time to carry out the just edit

There are many selections on the disc. In this case, press ■.
Programming procedure will be stopped at that time but you can still have the program selected, the length of which is not your designated time but very close to it.

Playing the Program B

Press ►.
The selections for side A will be played and then the unit will pause. Reverse the tape, then press ► or II. The selections for side B will be played.

To cancel the edit

Press CONTINUE or SHUFFLE and the unit enters continuous or shuffle play mode respectively.
The program will be erased.

To check the program

See page 17.

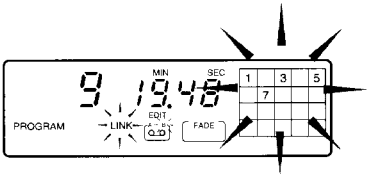
To designate a different time for each side

Execute steps 1 to 3 on pages 22 – 23, then press II. Then execute steps 2 to 3 for the other side.

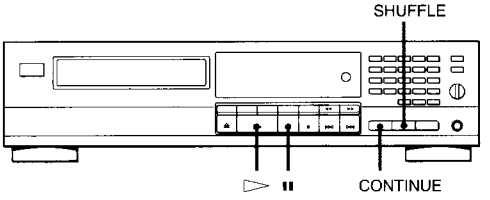
If your disc has more than 20 selections

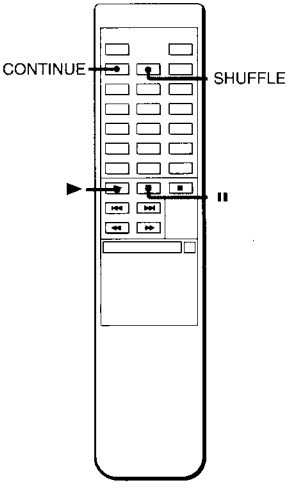
Selections over number 20 cannot be programmed with the time and just edit function; use the programming procedure on pages 16 – 17.

A

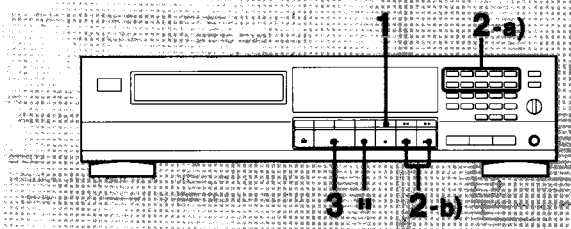


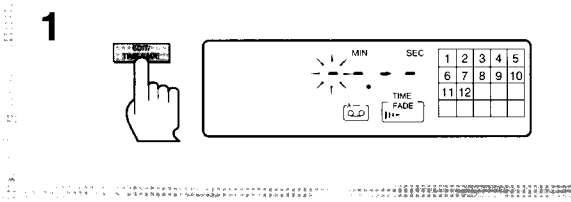
B

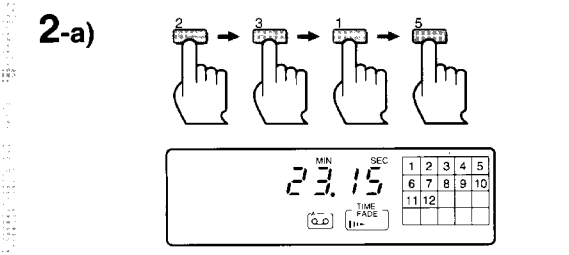


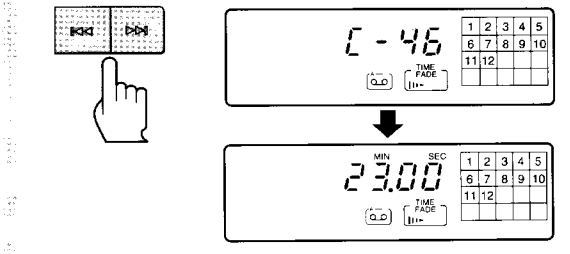


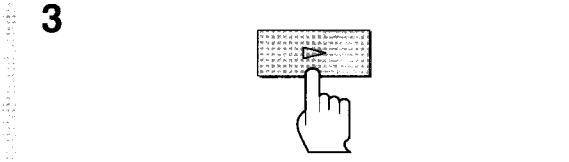
Fading Out at the Desired Time – Time Fade











You can end the play fading out by designating the play duration. Once the time fade is set, it functions twice for editing both sides of a tape. You can change discs without cancelling this function and use it in any play mode.
Note that you cannot use the time fade function, when the DIGITAL OUT (OPTICAL) jack is used for connections.

1 Press EDIT/TIME FADE three times in stop mode (or press it once in pause mode).
"TIME FADE" and "A" in the tape indicator appear in the display.

2 Set the desired play duration, using either numeric buttons or I◄◄ or ►►I.

a) When setting the time for one side or the tape as you wish
Use numeric buttons (See step 2-a) on page 22.) You need not press buttons for the seconds, unless required.

b) When using commercial tapes (46-, 54-, 60-, 74-, and 90-minute tapes)
Each time you press I◄◄ or ►►I, the play duration for one side of the tape is displayed as follows.

HALF ⟷ C-46 (23.00 min) ⟷ C-54 (27.00 min) ⟷ C-60 (30.00 min) ⟷ C-90 (45.00 min) ⟷ C-74 (37.00 min) ⟷ HALF

3 Press ► to start playing.
Before the unit enters pause mode at the set time with "B" lit in the tape indicator, play starts fading out.

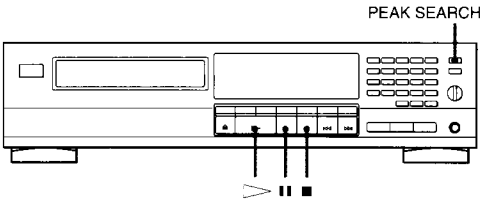
To start play for the other side of the tape
Press ► or II.
The unit enters pause mode at the set time by fading out for a specified duration.
When this play ends, time fade is cancelled.

To cancel time fade
Press EDIT/TIME FADE again.
Time fade is also cancelled when ◄◄ or ►► is kept pressed.

To display the time remaining until the set time
Press TIME twice.

When play ends within the designated period
Time fade function is kept active. Change discs and start play. When the total playing time of the discs reaches the designated period, the unit pauses by fading out.

Locating the Portion with the Highest Level – Peak Search



You can locate the portion with the highest input level of the disc to adjust the recording level.

Before starting play, press PEAK SEARCH. "PEAK" flashes in the display as the peak search begins functioning.
Upon completing the search, the unit starts repeating the portion with the peak volume so that you can adjust the recording level.

To cancel the peak search

– Press ■. "PEAK" goes off from the display.
– Press ► to start play from the first selection.
– Press II to put the unit into pause mode at the beginning of the first selection.

On peak search

The unit scans input levels of the whole disc and determines the peak (maximum input level) among them. The peak determined with this function is sometimes slightly different from the real one. In addition, portions determined as a peak vary each time this function is carried out on the same disc. The difference between the determined and the real peak is however, negligible and will not prevent you from adjusting the recording level.

Specifications

Compact disc player

Laser	Semiconductor laser
Wavelength	780 – 790 nm
Frequency response	2 Hz to 20 kHz ±0.5 dB
Signal-to-noise ratio	More than 102 dB
Dynamic range	More than 98 dB
Harmonic distortion	Less than 0.0035%
Channel separation	More than 100 dB

Outputs

LINE OUT (phono jacks)	Output level 2 V (at 50 kilohms)
	Load impedance over 10 kilohms
DIGITAL OUT (OPTICAL) (optical output connector)	
	Wavelength 660 nm
	Output level –18 dBm
PHONES (stereo phone jack)	
	Output level max. 10 mW
	Load impedance 32 ohms

General

Power requirements	120 V AC, 60 Hz
Power consumption	12 W
Dimensions (approx., including projections)	
	430 x 110 x 295 mm (w/h/d)
	(17 x 4 $^{3}/_{8}$ x 11 $^{5}/_{8}$ inches)
Mass (approx.)	3.7 kg (8 lbs 3 oz)

Remote commander

Remote control system	Infrared control
Power requirements	3 V DC with two size AA (R6) batteries
Dimensions (approx., including projections)	
	40 x 20 x 175 mm (w/h/d)
	(1 $^{5}/_{8}$ x $^{13}/_{16}$ x 7 inches)
Mass (approx.)	95 g (4 oz)

Supplied accessories

Audio cord	(1) (2 phono plugs – 2 phono plugs)
Remote commander	(1)
Sony SUM-3 (NS) batteries	(2)

Design and specifications are subject to change without notice.

Troubleshooting Guide

Before going through the check list below, first refer back to the connections and operating procedures.
Should any problem persist after you have made these checks, consult your nearest Sony service facility.

Symptom	Cause	Remedy
The disc tray does not close.	The disc is not placed correctly.	Place the disc correctly on the disc tray.
Play does not start.	Dirty disc.	Clean the disc.
	The disc is inserted upside down.	Insert the disc with the printed side up.
	⏸ is engaged.	Press ▶ or ⏸ again to release it.
	Moisture condensation.	Leave the unit turned on for approximately one hour.
Sound is not heard.	Loose connection.	Insert the plug firmly.
	Connection is incorrect.	Check the connection referring to "Hooking Up the System".
	The PHONE LEVEL control is set to the minimum.	Turn the control clockwise.
Play does not begin from the first selection.	The unit is in the program or shuffle mode.	Press CONTINUE.
The remote commander does not operate the unit.	The batteries are run down.	Replace both batteries.
	The remote commander is not pointed at the remote sensor.	Point the remote commander at the sensor.
	There is an obstacle between the remote commander and the unit.	Remove the obstacle.
	The remote commander is too far from the unit.	Move closer.

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